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Intellectual Property Law & Related Matters

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**FACSIMILE TRANSMISSION**

TO: USPTO  
Thai Q. Phan

FAX NO. (703) 872-9306

FROM: J. Joel Justiss

RE: Serial No.: 06/634,764  
Attorney Docket No.: CARLBOM 5-4  
PETITION TO REMOVE IMPROPER ABANDONMENT AND  
RESUBMISSION OF REQUEST FOR RECONSIDERATION  
UNDER 37 C.F.R. § 1.111

DATE: April 26, 2005

PAGES: 9 (including cover page)

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**MESSAGE:**

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Mailing Address: P.O. Box 832570, Richardson, Texas 75083-2570  
Street Address: Palisades Central II, 2435 North Central Expressway, Suite 1300, Richardson, Texas 75080-2753 U.S.A.  
Tel: (972) 480-8800 Fax: (972) 480-8865 firm@hittgaines.com

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ATTORNEY DOCKET NO. CARLBOM 5-4

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ingrid B. Carlborn, *et al.*

Serial No.: 09/634,764

Filed: August 7, 2000

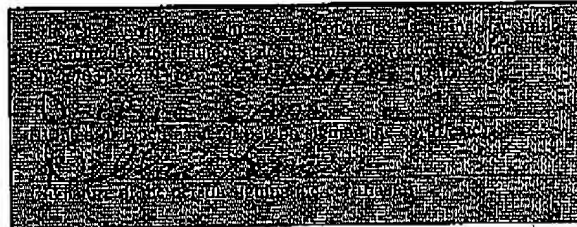
Title: ACOUSTIC MODELING APPARATUS AND METHOD  
USING ACCELERATED BEAM TRACING TECHNIQUES

Grp./A.U.: 2128

Examiner: Thai Q. Phan

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**PETITION TO REMOVE IMPROPER ABANDONMENT AND RESUBMISSION OF**  
**REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.111**

The Applicants resubmit the following response (Request for Reconsideration) to the non-final Office Action that was mailed October 22, 2003. The response was originally filed on November 13, 2003, with an IDS, a check for the IDS and a PTO 1449 form. As indicated in the PAIR system, the USPTO acknowledges receipt of the IDS on November 13, 2003, but does not acknowledge receipt of the response. Accordingly, the USPTO issued a Notice of Abandonment.

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The Notice of Abandonment, however, was improper. As indicated by the returned postcard enclosed herewith, the USPTO received the response on November 13, 2003. Thus, a response to the non-final Office Action mailed October 22, 2003, was timely filed with the USPTO. Accordingly, the above application was never abandoned. The Applicants, therefore, respectfully request the Examiner to remove the improper abandonment of the above application and consider the enclosed response that was timely filed.

### Conclusion

In view of the above remarks and the enclosed response, the Applicants view all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-34.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

HITT GAINES, PC



J. Joel Lustiss  
Registration No. 48,981

Dated: 4/26/05

P.O. Box 832570  
Richardson, Texas 75083  
(972) 480-8800

Applicant: Ingrid B. CARLBOM et al.	Case No.: 37910-000168/US
Serial No.: 09/534,764	Filing Date: August 7, 2000
Title: ACOUSTIC MODELING APPARATUS AND METHOD USING ACCELERATED BEAM TRACING TECHNIQUES	
Please acknowledge receipt of:  Transmittal; Request for Reconsideration; Information Disclosure Statement; PTO 1449; and Check in the amount of \$180.00.	
By stamping and returning to Harnes, Dickey & Pierce, P.L.C.	
Due: 1-22-2004	USPTO Date Stamp Attorney: GDY/KE/tag 1.11/13/2003



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PATENT  
37310-000168/US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Ingrid B. CARLBOM et al.

Serial No.: 09/634,764

Group: 2123

Filed: August 7, 2000

Examiner: Thai Q. Phan

For: ACOUSTIC MODELING APPARATUS AND METHOD USING  
ACCELERATED BEAM TRACING TECHNIQUES

REQUEST FOR RECONSIDERATION

Commissioner for Patents  
BOX NON-FEE AMENDMENT  
P.O. Box 1450  
Alexandria, VA 22313-1450

November 13, 2003

Dear Sir:

In response to the Office Action dated October 22, 2003, the following remarks are respectfully submitted.

Remarks begin on page 2 of this paper.

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Atty Docket No. 37310-000168/US

### REMARKS

Claims 1-34 are pending in the present application. Claims 1, 12, 18 and 29 are independent.

#### Rejections Under 35 U.S.C. § 103

Claims 1-4, 6-11, 18-21 and 23-28 have been rejected under 35 U.S.C. § 103(a), as being unpatentable over Nagamitsu, et al. (U.S. Patent No. 5,467,401) hereinafter 'Nagamitsu'. This rejection is respectfully traversed.

Applicants submit that Nagamitsu fails to teach or suggest a method of modeling coherent wave propagation in a spatial environment comprising, at least computing wave propagation paths from a source to other regions in said spatial environment in priority order, as recited in independent claim 1 and somewhat similarly recited in independent claim 18.

The Examiner relies on Nagamitsu (see column 7, lines 5-17 and column 8, lines 39-41) as allegedly teaching computing wave propagation paths in a priority order. However, Applicants have reviewed these passages and find no teaching or suggestion of computing wave propagation paths in a priority order. Column 7, lines 5-17 of Nagamitsu describes sound rays being sent, reflected and received so an arrival time can be computed. Column 8, lines 39-41 of Nagamitsu discloses the use of weights corresponding to the arrival time of each sound ray. Neither passage describes computing wave propagation paths from a source to other regions in a priority order.

However, the Examiner alleges the following:

"Practitioner in the art at the time of the invention was made would have found Nagamitsu disclosure of ordering of reflection of incident waves, directly from sound sources or indirectly from reflection of incident waves, directly from sound sources or indirectly from reflection waves, by assigning weight to arrival time or timestamp of wave arrivals with taking travel path into consideration in order to time stamp or weighted arrival time for incident waves (see col. 7, lines 5-17), and computing wave responses for all incident waves for each direction as in cols. 8, 9 and 10 implies the

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Atty Docket No. 37310-000168/US

claimed limitation of priority order of computing wave propagation in order to reflect sound waves incident directly from sound sources or indirectly from reflection such that memory capacity would be increased, and faster simulator in sound environment would be obtained as disclosed in col. 10, lines 2-11, lines 30-35, lines 43-45, for example."

Applicants submit that the Examiner has failed to make out a proper 103 rejection, because not all of the features in claims 1 and 18 are taught or suggested by Nagamitsu. The Examiner refers to "cols. 8, 9 and 10" broadly with no specificity to allege that computing wave propagation is implied, this is improper.

Column 10, lines 2-11, 30-35 and 43-45 of Nagamitsu are directed to impulse response data being stored into memory and the desire to decrease the amount of needed processing. None of these passages even remotely suggest computing wave propagation paths in a priority order, as recited in claims 1 and 18.

Accordingly, for at least these reasons, Applicants submit that claims 1 and 18, and those claims dependent thereon, are allowable over the prior art. Withdrawal of the rejection is kindly requested.

Claims 12-17 and 29-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Nagamitsu (5,467,401) in view of Reed et al. (5,574,466). This rejection is respectfully traversed.

Applicants submit that Nagamitsu fails to teach or suggest a method of modeling coherent wave propagation in a spatial environment, comprising at least computing a filter response for at least one path between said pairs in said plurality of sources based on constructed data structures, as recited in claim 12 and somewhat similarly in claim 29.

Nagamitsu describes an "impulse response computing unit 21 for reading out the echotime pattern from the memory 18 to compute an impulse response" (column 8, lines 51-53).

Applicants submit that computing an impulse response based on an echo time pattern is not the

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Atty Docket No. 37310-000168/US

same as computing a filter response based on constructed data structures. The Examiner relies on Reed for an alleged teaching of a "tree data structure." However, Reed does not make up for the deficiencies in Nagamitsu; namely, Reed does not compute a filter response based on constructed data structures. Accordingly, the Examiner has failed to set forth a proper rejection under 35 U.S.C. 103, at least because the Nagamitsu/Reed combination fail to teach all of the features recited in claims 12 and 29.

For at least this reason, Applicants kindly request withdrawal of the rejection and allowance of claims 12-17 and 29-34.



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Atty Docket No. 37310-000168/US

**CONCLUSION**

In view of the foregoing, Applicants submit that claims 1-34 are patentable over the relied upon references, and that the application as a whole is in condition for allowance. Early and favorable notice to that effect is respectfully solicited.

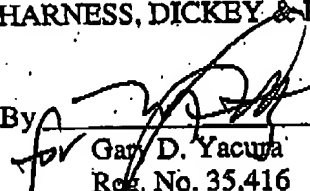
In the event that any matters remain at issue in the application, the Examiner is invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNES, DICKEY & PIERCE, P.L.C.

By

  
for Gary D. Yacura  
Reg. No. 35,416  
P.O. Box 8910  
Reston, VA 20195  
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45,274

GDY/KE/cng

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